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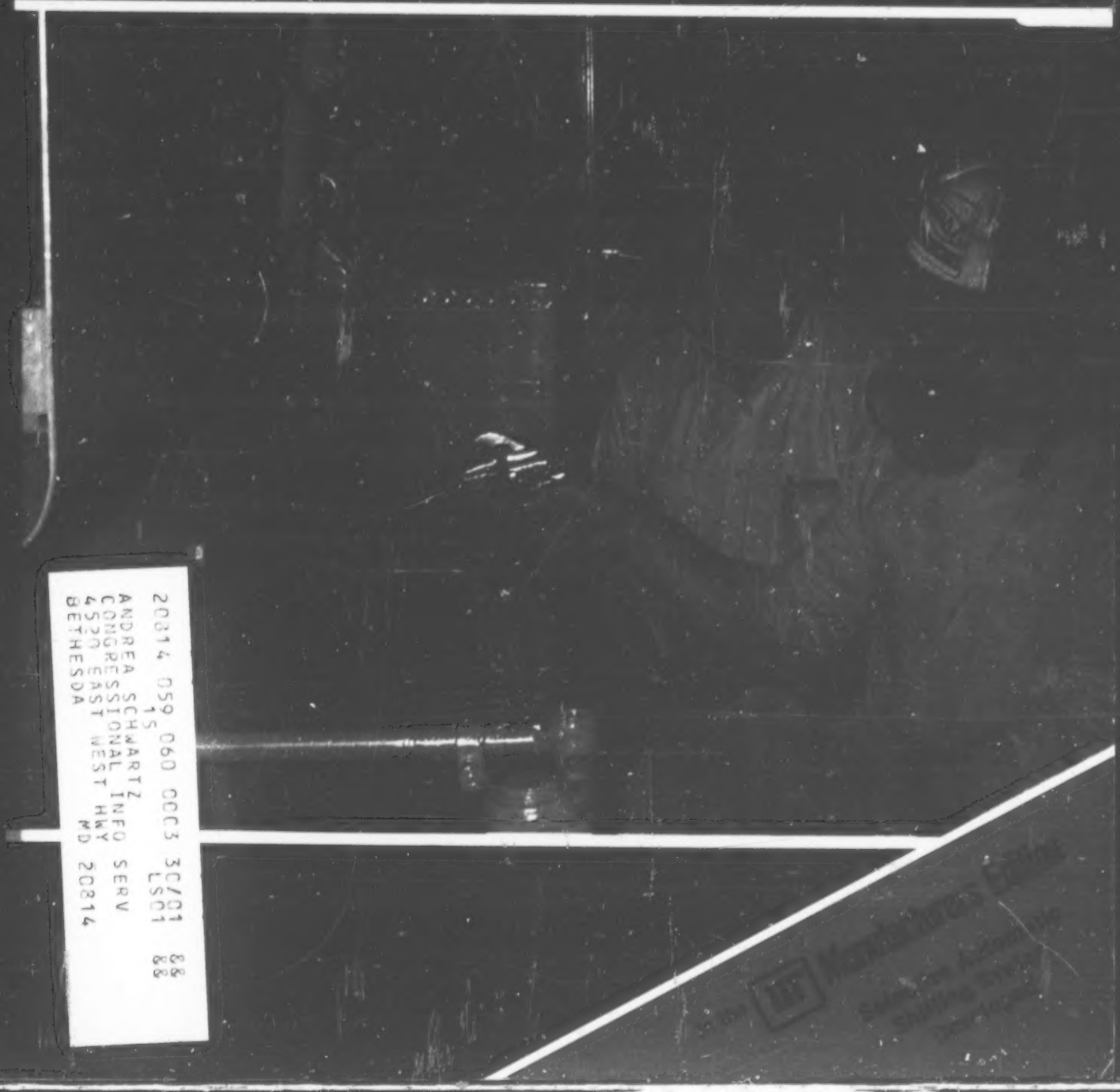
December 15, 1981
TWO DOLLARS

Implement&Tractor

The business magazine of the farm & industrial equipment industry

Knecht's 31 points for fix-up of used machines

page 8



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INTERTEC PUBLISHING CORP.

December 15, 1981 • Vol. 96 • No. 24

Implement&Tractor

The business magazine of the farm & industrial equipment industry

in this issue...

8: **Knecht's 31 Points: They Make Used Stuff Desirable.** Paola, Kan., dealer George Knecht uses a systematic approach to reconditioning used equipment to satisfy the growing needs of part-time farmers and to keep his shop busy.

14: **Wholesalers: Another Hardworking Convention.** FEWA members get heavily into panel discussions and host several hundred manufacturers at their dating session. Bob Lemay moves from acting president to president.

18: **FEMA Members Hear an Upbeat Outlook.** *Farm Journal's* John Marten sees a better 1982 in the agricultural economy than many others do. Snowco's Ed Elstun is elected president.

22: **Manufacturers Reps Seek Continued Growth.** AIMRA conducts its 20th annual convention with 110 of its 192 member firms represented. New president is Ray Badger.

48: **Is There a 'Best' Way to Repair Hydraulic Hose?** Manufacturers comment on merits of swaging and crimping fittings onto hydraulic hose.

On the cover... Brad Thompson finishes spraying a new coat of paint on a reconditioned tractor as dealer George Knecht watches.

DEPARTMENTS

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what's ahead...

I&T SINCE 1886

December 15, 1981

OCTOBER RETAIL SALES OF FARM EQUIPMENT IN THE U.S. took a tumble in every product department covered in the FIEI flash report. The brightest, or least dreary, spots are combines, conventional balers and mower-conditioners, which for the year to date are only marginally under the levels of 1980.

	Unit Retail Sales					
	October			January-October		
	1981	1980	Pct. Change	1981	1980	Pct. Change
Farm Wheel Tractors:						
2-wheel drive						
40-100 hp	5,170	6,501	-20.5	44,400	51,896	-14.4
Over 100 hp	5,555	7,217	-23.0	36,408	42,964	-15.3
Total 2-wheel drive	10,725	13,718	-21.8	80,808	94,860	-14.8
4-wheel drive	882	1,666	-47.1	8,020	8,943	-10.3
Total Tractors	11,607	15,384	-24.6	88,828	103,803	-14.4
Combines (S-P)	5,593	5,855	- 4.5	21,446	21,589	- 0.7
Balers*	1,041	1,128	- 7.7	12,991	13,086	- 0.7
Forage Harvesters**	1,266	1,780	-28.9	6,523	8,205	-20.5
Mower-Conditioners	1,298	1,548	-16.1	17,575	17,889	- 1.8

*Bales under 200 lbs. **Shear-bar type.

CANADIAN RETAIL SALES IN OCTOBER were also disappointing. The decline in tractor sales is believed to be due largely to severely depressed sales in eastern Canada in the 40-99 horsepower size group.

	Unit Retail Sales					
	October			January-October		
	1981	1980	Pct. Change	1981	1980	Pct. Change
Farm Wheel Tractors	3,977	5,085	-21.4	23,834	25,826	- 7.7
Combines (S-P)	1,015	914	+11.1	4,275	3,445	+24.1
Balers*	324	369	-12.2	3,068	3,822	-19.7
Mower-Conditioners	280	286	- 2.1	3,754	3,991	- 5.9

WORLD PROSPECTS FOR COARSE GRAIN CROPS for the 1981-82 year, says the USDA's Foreign Agricultural Service, are now estimated to be 1,623.7 million metric tons, compared with 1,539.2 million in 1979-80 and 1,559.5 million (preliminary) in 1980-81. For the U.S., the projection is 329.2 million metric tons in 1981-82, compared with 302.8 million in 1979-80 and 269.8 million in 1980-81. As for oilseeds, the world is expected to produce 173.9 million metric tons in 1981-82; for the U.S., it's 66.3 million metric tons. Cotton: 70.9 million bales worldwide in 1981-82, 15.6 million bales in the U.S.

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AUCTION PRICES OF USED EQUIPMENT

An exclusive I&T monthly report of actual prices paid recently at these leading national wholesale auctions.

Asterisk beside tractor price indicates highest bid offered on tractors which were not sold.

YODER & FREY, INC.
Archbold, Ohio
(November 10, 1981)

ALLIS-CHALMERS TRACTORS

7040 diesel, 1974 (Good)	9400*
XT190, 1973 (Good)	4200*
XT190, ser. 3, 1972 (Fair)	4200*
XT190, 1966 (Fair)	2450*
170, 1970 (Good)	3500*
170, 1970 (Fair)	3400*
D17, 1965 (Fair)	1500*
D15, 1964 (Fair)	1100
D14, 1964 (Rough)	925*
D12, 1963 (Rough)	1075*
WD45, 1953 (Good)	1100*
WD45, 1953 (Fair)	750
WD45, ldr., (Rough)	530
WD, 1955 (Good)	850*

CASE TRACTORS

1490 diesel, (New)	9100*
1070 diesel, 1972 (Rough)	9000*
1030 diesel, 1965 (Fair)	3600*
1030 diesel, 1965 (Fair)	3400*
930, 1967 (Good)	3050*
830 diesel, 1965 (Fair)	2150*
830, 1965 (Rough)	1500*
830 diesel, 1965 (Rough)	1000*
530, 1965 (Rough)	1325
400, 1956 (Good)	1100*
400, 1956 (Fair)	850
400, 1955 (Fair)	925

DAVID BROWN TRACTORS

1200, 1970 (Good)	3400*
990, 1961 (Rough)	1100

DEUTZ TRACTOR

130-06, 1978 (Good)	8000*

FERGUSON TRACTOR

40	800

JOHN DEERE TRACTORS

5020 diesel, 1970 (Good)	6800
4520 diesel, 1970 (Good)	8750*
4520 diesel, 1970 (Fair)	6950
4030 diesel, 1977 (Rough)	8600
4020 diesel, 1967 (Fair)	6700*
4020 diesel, 1967 (Fair)	5750
4020 diesel, 1966 (Good)	7250*
4020 diesel, 1966 (Rough)	5700*
4010 diesel, 1963 (Good)	4950
4010 diesel, 1963 (Fair)	3000
3010 diesel, 1964 (Good)	3000*
3010, 1963 (Good)	2725
3010 diesel, 1962 (Rough)	2200
730 diesel, 1959 (Fair)	2200*
730 diesel, 1959 (Fair)	2150*
730 diesel, 1958 (Fair)	1700*
720 LP, 1958 (Rough)	1100*
520, 1957 (Good)	1570*
520, 1957 (Fair)	1450*
430, 1958 (Good)	1525
420, 1959 (Rough)	850*
70 diesel, 1955 (Fair)	1300*
70, 1956 (Fair)	1200*
70, 1953 (Fair)	1000*
60, 1956 (Good)	1175
A, 1946 (Fair)	420
B, 1948 (Fair)	325
40, 1956 (Fair)	1200
M, plow, cult., side dresser	785

FORD TRACTORS

9600, 1975 (Good)	7600*
8000, 1973 (Fair)	7500*
8000, 1971 (Good)	5900*
7600, 1979 (Excellent)	9100*
5000 diesel, 1971 (Good)	5750*
5000, 1969 (Rough)	3600*
4000, 1971 (Rough)	3250
4000, 1959 (Rough)	1460
4000, Select-O-Speed, (Rough)	925*
3000, 1969 (Good)	3400*
3000, 1967 (Fair)	2375*
900, 1956 (Fair)	1100*
860, bld., 1955 (Good)	1600
Dexta, 1958 (Fair)	1250*
Jub., bld., 1953 (Good)	1800
Jub., 1953 (Fair)	1375*
8N, 1952 (Good)	1300
8N, 1952 (Fair)	1250*
8N, 1950 (Rough)	1150
8N, 1950 (Rough)	850
8N, 1949 (Fair)	1075
8N, 1948 (Rough)	950
8N, 1946 (Rough)	650
9N, 1945 (Fair)	900
9N, 1945 (Rough)	775
9N, 1945 (Rough)	550

INTERNATIONAL HARVESTER TRACTORS

1568 diesel	10,000
1466, 1974 (Rough)	8500*
1066 diesel, 1975 (Fair)	7100*
1066 diesel, 1975 (Rough)	6800*
1066 diesel, 1973 (Good)	7250*
806 diesel, 1966 (Fair)	4300*
806, 1963 (Fair)	3200*
706 diesel, 1964 (Fair)	3900
706, 1964 (Rough)	2300*
656, 1967 (Fair)	3650*
656, 1967 (Rough)	2700*
606 diesel, 1966 (Fair)	2400

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574, 1973 (Good) 5425
560, 1960 (Fair) 2050*
560, 1960 (Rough) 1100*
460 diesel, 1960 (Fair) 1500*
450, 1957 (Good) 1150*
450 diesel, 1957 (Rough) 700
400, 1958 (Rough) 925*
384 diesel, 1980 (Excellent) 4350*
354, 1973 (Fair) 2550
350, 1956 (Fair) 1050*
200, 1959 (Fair) 825*
140, 1963 (Fair) 1600*
MTA, 1953 (Good) 1125*

MD, 1952 (Rough) 700*
M, 1950 (Good) 1050*
MTA, 1950 (Fair) 800
M, 1950 (Rough) 625
Sup. H, cult., 1952 (Fair) 850*
Cub Loboy, 1958 (Good) 975

MASSEY-FERGUSON TRACTORS

1085 diesel, 1979 (Excellent) 8400*
275, 1974 (Fair) 6750*
202, ldr. 3400
165, 1970 (Fair) 3675
165, 1969 (Good) 3850
165, 1967 (Fair) 3350*
165 diesel, 1967 (Fair) 3000*
165, 1966 (Rough) 2675
150, 1967 (Rough) 2525
135, 1967 (Fair) 3000*
135, ldr., 1969 (Good) 3150
135, 1965 (Fair) 2300
35, 1956 (Good) 1850*

MINNEAPOLIS MOLINE TRACTORS

G1000, 1970 (Good) 3300*
G900, 1968 (Good) 3350
602, 1964 (Fair) 1900*

OLIVER TRACTORS

2050 diesel, 1969 (Rough) 5450
1955 diesel, 1970 (Good) 6250*
1860 2500
1800 diesel, 1960 (Rough) 1700*
770, 1958 (Rough) 725*
550 diesel, 1960 (Fair) 1100*
77, (Rough) 275

NOTES
Prices reported are for individual sales at wholesale on "as is," "cne's and carry" basis.
Prices reported are NOT averages.

Condition classifications: EXCELLENT means—Engine: in perfect condition, 400 to 600 hours of use; Rubber: 80% tread remaining, no breaks or cracks; Paint: original and bright; General Appearance: excellent.

GOOD means—Engine: good running condition; Rubber: 70% tread remaining, no breaks or cracks; Paint: original paint or a good repaint job; General Appearance: good over-all.

FAIR means—Engine: possibly in need of a minor overhaul to restore; Rubber: 60% tread remaining, some cracking evident in side walls; Paint: only fair, weathered and some rust apparent; General Appearance: worn, some dents, minor parts such as gage covers missing or broken.

ROUGH means—Engine: obviously in need of a major overhaul; Rubber: smooth; Paint: scarred, weathered, rusty, needs painting urgently; General Appearance: dents, ruptures, broken parts, loose wires, some components such as lights broken, missing or inoperative.

DEMONSTRATOR means—used for demonstrating only and in practically new condition.

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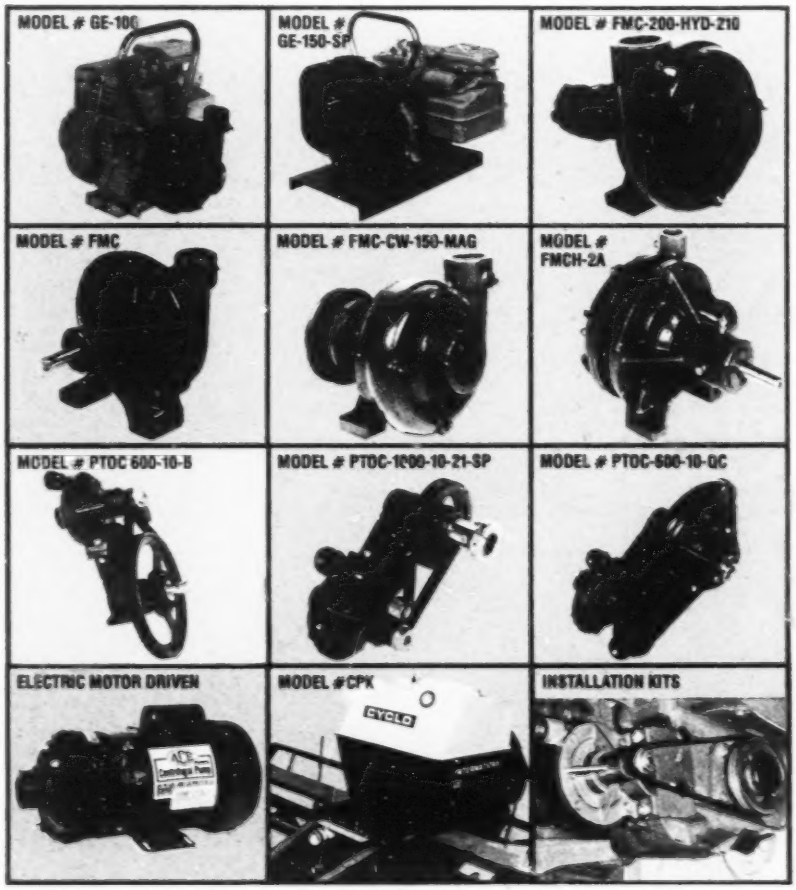

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January 7, 1982
TWO DOLLARS

Implement&Tractor

The business magazine of the farm & industrial equipment industry

17th Annual Engineering Concepts Issue

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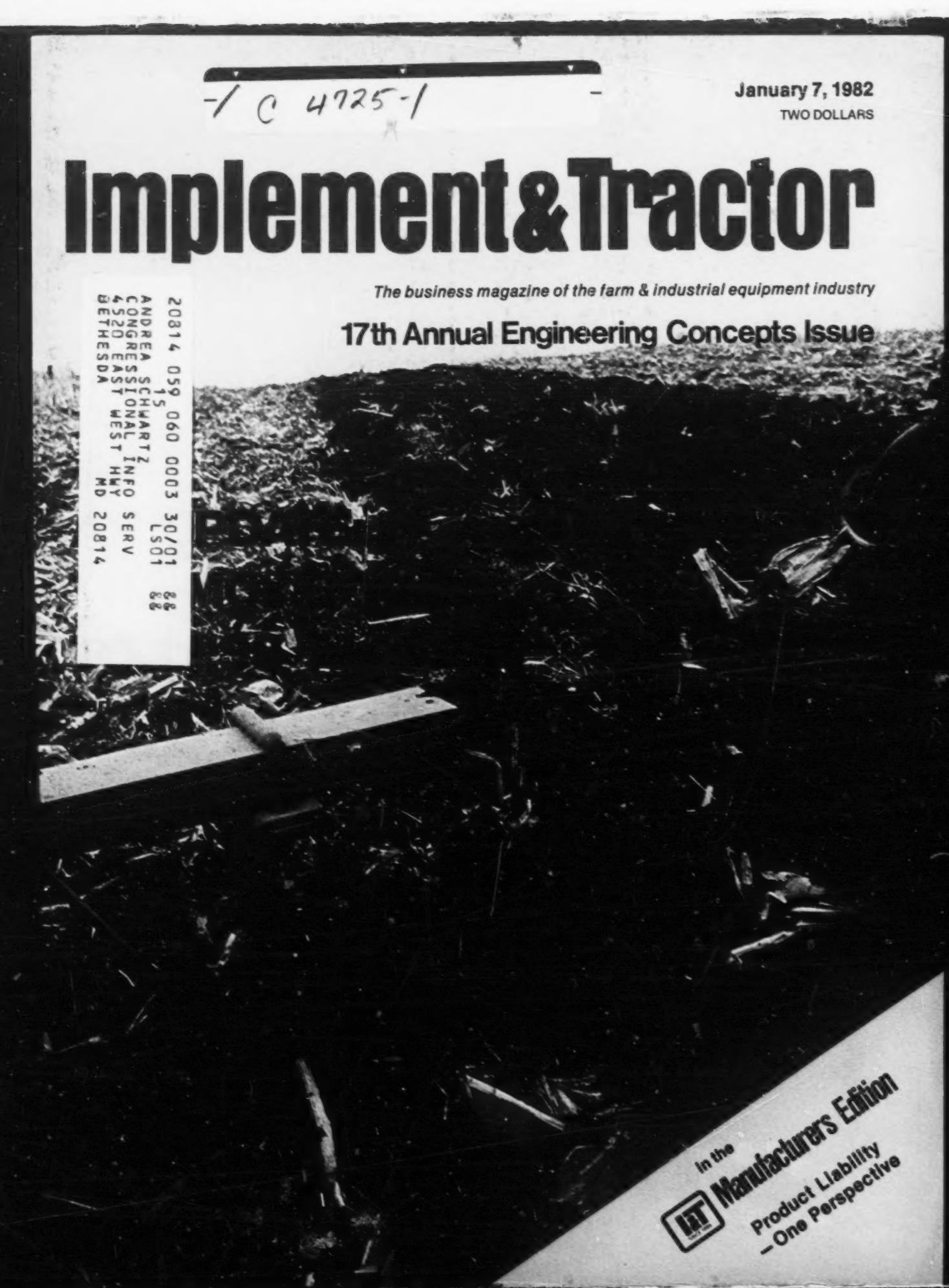

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—One Perspective

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Implement & Tractor

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17th Engineering Concepts Issue

An Update: The Movement to Less Tillage

11: Introduction

12: Minimum Tillage Practices. Agricultural engineers from eight areas of the country answer I&T's questions concerning changes in tillage practices; the reasons for the changes; their effects on yields, operating costs and crop mixes; the most important changes in tillage the past ten years; what changes are coming, and what changes should be made.

26: A New Tillage Tool. The Paraplow, developed in England, has a slant-leg design that, according to the manufacturer, is capable of breaking up areas of compaction to a depth of 14 inches while causing only minimum surface disturbance.

28: Reduced Tillage Practice: How It Has Grown. A 10-year history of the growth of no-till and minimum-till practices and a state-by-state comparison of tillage practices.

On the cover...the effects of disking and moldboard plowing contrast sharply as seen in this side-by-side comparison in a Missouri corn field.

DEPARTMENTS

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what's ahead...

I&T SINCE 1886

January 7, 1982

FIRST FORECAST: CANADIANS LOOK AT 1982. Meeting in late November in Toronto, member firms of the Canadian Farm & Industrial Equipment Institute presented the following product unit sales forecasts (along with preceding sales data):

Product	Unit Retail Sales 1980(a)	1981(e)	1982(f)
Farm Wheel Tractors			
All, Eastern Canada	13,883	12,676	13,078
All, Western Canada	15,266	16,210	16,014
Two-Wheel Drive:			
9-19 hp	1,421	1,605	1,508
20-39.9 hp	2,669	2,593	2,511
40-99.9 hp	13,526	11,504	11,809
100 hp and over	8,728	9,167	9,192
Four-Wheel Drive:			
Under 200 hp	2,085	2,535	2,548
200 hp and over	1,606	1,815	1,900
Front-Wheel Assist:			
Under 40 hp	1,962	2,091	2,135
40-99.9 hp	2,400	2,569	2,744
100 hp and over	357	370	394
Total All Farm Wheel Tractors	29,149	28,886	29,092
Swathers, Self-Propelled	4,641	4,358	4,264
Swathers, Pull-Type	3,881	4,100	3,883
Combines, Self-Propelled	4,077	4,700	4,416
Combines, Pull-Type	2,930	2,918	3,001
Corn Heads	960	918	931
Balers (under 200 lbs.)	4,093	3,328	3,205
Balers (200 lbs. and over)	3,902	3,631	3,785
Forage Harvesters (shear-bar type)	1,587	1,556	1,523
Mower-Conditioners	4,300	4,085	4,083
Moldboard Plows (pull-type, mounted)	5,183	4,586	4,545
Chisel Plows	4,196	4,179	4,071
Diskers	2,084	2,161	2,099
All Disk Harrows	6,020	5,606	5,553
All Grain Drills	7,712	7,883	7,666
Corn Planters	1,505	1,574	1,530
Manure Spreaders	3,215	3,216	3,066
Grinder-Mixers	1,685	1,600	1,550

Source: Canadian Farm & Industrial Equipment Institute.
(a) actual retail sales. (e) actual sales plus estimates on 4th period. (f) forecast by participating manufacturers of CFIEI.

(Continued on facing page)——→

EDITOR'S NOTEBOOK

How Goes It With Salesmen?

If I had thought of it in time, I would have named 1981 "The Year of the Salesman." In what most people consider the toughest farm and industrial equipment sales year in decades, what good would that have done? Not much, I'm sure. But it might have offered some consolation to the people who make things happen in this industry, or any industry.

Remember, in a year like last year, even though the unit sales were down, the *selling* went up. If it was a tough year for salesmen, it was a worse year for order takers.

What could I have done to recognize the hard work, disappointments and rare triumphs that went with selling farm equipment in 1981? Perhaps I could have sponsored some sort of contest. In it, the salesman who convinced a panel of judges (debt-ridden farmers who hadn't bought anything new since the Eisenhower administration) that his 1981 market had been the toughest in which any salesman had to survive would have been declared winner. Prize: I&T would have bronzed a pair of shoes—the salesman's own—with holes in the soles. They could then have been hung over the mirror of the salesman's car or pickup as he continued working his territory.

And now, many of the industry watchers are telling us that 1982, or at least the first part of it, is not going to be much better. I hope they're wrong, but just in case they're right, I hereby proclaim 1982 to be The Year of the Salesman. All of us who don't sell, but who depend on the salesman getting something started out there for our own livelihood, should resolve to back him up as best we can.

All this came to mind the other day as I looked over a recent study by the Far West Equipment Dealers Assn. that dealt in part with incomes derived by dealerships' salesmen and sales managers.

Actually, 1981 wasn't too bad a year for dealers as a whole in Arizona, California and Nevada. Their salesmen, according to the survey, had gross median earnings of $26,400. (But if you think salesmen out there making that kind of dough have it made, check out their tax, real estate and utility costs before you start packing your bags.)

Here are some other highlights from the sales personnel part of the survey:

• **Of 189 salesmen,** 167 were on a mix of salary and commission. Of the others, 11 were straight salary (median, $20,000) and 11 were commission only (median, $22,800). The highest straight salary was $21,300; the best commission-only income reported was $33,500.

(More...)

NOVEMBER RETAIL SALES IN THE U.S., according to the FIEI flash report, were off in all categories except self-propelled combines, which were up almost 40 per cent for the month. The numbers:

	Unit Retail Sales					
	November			January-November		
	1981	1980	Pct. Change	1981	1980	Pct. Change
Farm Wheel Tractors:						
2-wheel drive						
40-100 hp	3,196	3,000	+ 6.5	47,219	54,896	-14.0
Over 100 hp	3,150	4,651	-32.3	39,709	47,615	-16.6
Total 2-wheel drive	6,346	7,651	-17.1	86,928	102,511	-15.2
4-wheel drive	844	1,039	-18.8	8,862	9,982	-11.2
Total Tractors	7,190	8,690	-17.3	95,790	112,493	-14.8
Combines (S-P)	3,465	2,481	+39.7	24,910	24,070	+ 3.5
Balers*	322	525	-38.7	13,369	13,611	- 1.8
Forage Harvesters**	802	916	-I2.4	7,325	9,121	-19.7
Mower-Conditioners	441	822	-46.4	18,011	18,711	- 3.7

*Bales under 200 lbs. **Shear-bar type.

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Table 1 State-by-state tillage comparison, 1980-1981

State	No-Tillage 1980	No-Tillage 1981	Minimum-Tillage 1980	Minimum-Tillage 1981	Conventional Tillage 1980	Conventional Tillage 1981
Alabama	194,530	225,850	229,600	398,150	3,885,500	3,582,700
Alaska	100	500	4,800	7,000	8,475	26,000
Arizona	11,000	13,700	255,000	290,000	1,120,000	1,082,300
Arkansas	15,750	21,000	329,200	362,000	6,760,600	6,805,800
California	1,100	1,500	1,310,000	1,369,500	4,138,900	4,144,000
Colorado	6,500	6,500	2,311,000	2,311,000	3,126,700	3,126,700
Connecticut	1,695	2,025	13,425	15,000	37,650	36,000
Delaware	116,709	135,251	311,714	311,221	156,267	140,306
Florida	5,311	7,000	112,105	132,990	330,371	348,790
Georgia	435,350	586,400	3,395,000	3,465,000	855,000	755,000
Hawaii					297,000	310,500
Idaho	9,300	16,000	2,701,000	2,711,000	3,265,000	3,255,000
Illinois	660,600	670,800	5,990,200	6,267,000	15,613,800	15,469,000
Indiana	463,588	480,000	3,443,545	3,500,000	6,669,588	6,000,000
Iowa	115,136	128,000	11,059,344	11,202,000	9,861,020	9,706,000
Kansas	325,000	377,000	9,663,000	9,994,000	10,217,000	9,922,000
Kentucky	934,800	1,001,800	2,348,712	2,151,880	1,736,811	1,573,000
Louisiana	16,000	20,000	640,000	710,000	3,686,000	3,777,000
Maine	4,500	5,600	20,000	30,000	241,000	261,000
Maryland	318,485	344,785	535,591	610,065	527,734	484,546
Massachusetts	1,300	1,500	6,950	7,450	52,550	52,050
Michigan	80,500	93,000	650,000	760,000	3,900,000	3,900,000
Minnesota	173,300	220,500	4,464,000	4,913,000	15,372,100	15,305,000
Mississippi	111,000	126,500	1,560,000	1,612,500	2,390,000	2,220,000
Missouri	257,400	302,000	2,990,125	3,510,150	7,172,595	8,037,280
Montana	25,300	80,300	704,000	1,204,000	6,582,500	6,085,000
Nebraska	548,000	544,900	6,583,500	6,791,200	7,786,850	7,777,790
Nevada	112,253	114,735	55,610	58,072	112,800	113,778
New Hampshire	1,000	2,000	10,000	10,000	19,600	19,600
New Jersey	50,000	41,000	47,000	55,000	405,000	377,000
New Mexico	9,635	10,135	269,000	297,000	890,500	860,000
New York	41,510	51,450	165,300	193,000	2,051,000	2,103,000
North Carolina	270,000	273,000	1,020,000	1,090,000	3,654,000	3,598,000
North Dakota	12,000	13,000	3,864,000	4,200,000	23,224,000	22,823,000
Ohio	414,300	440,000	2,251,000	2,270,000	7,814,000	7,825,000
Oklahoma	8,900	9,600	2,150,000	2,211,300	8,086,000	7,931,000
Oregon	22,957	28,895	547,436	597,532	2,210,242	1,497,625
Pennsylvania	427,000	1,245,000	802,000	792,000	1,175,000	1,166,000
Puerto Rico	2,130	1,900	167,430	160,100	495,816	501,500
Rhode Island	97	130	175	185	8,800	9,200
South Carolina	67,762	80,150	1,100,400	1,105,000	1,745,800	1,745,000
South Dakota	29,000	15,000	4,010,000	4,500,000	13,411,000	12,940,000
Tennessee	266,200	289,000	666,000	766,000	2,387,000	2,304,000
Texas	45,400	42,500	2,193,300	3,125,000	16,735,500	15,806,700
Utah			156,500	168,500	396,000	384,000
Vermont	8,000	8,000	4,000	5,000	260,000	260,000
Virginia	350,300	377,000	469,000	501,000	1,006,500	952,800
Washington	11,783	22,047	346,454	346,600	3,382,613	3,372,203
West Virginia	45,000	53,000	5,000	10,000	55,000	50,000
Wisconsin	110,200	126,650	908,500	1,044,000	5,081,000	4,934,000
Wyoming			1,000	1,000	690,000	777,000
Totals	**7,137,681**	**8,656,603**	**82,840,916**	**88,142,395**	**211,088,182**	**206,533,168**

Definitions of each tillage system:

No-tillage: Where only the intermediate seed zone is prepared. Up to 25 per cent of surface area could be worked. Could be no-till, till-plant, rotary strip tillage, etc. Includes many forms of conservation tillage and mulch tillage.

Minimum tillage: Limited tillage, but where the total field surface is still worked by tillage equipment such as disk, chisel plow or field cultivator.

Conventional tillage: Where 100 per cent of the topsoil is mixed or inverted by plowing, power tiller or multiple diskings.

Source: *No-Till Farmer* magazine. Data supplied by state agronomists of Soil Conservation Service. Figures for 1981 are estimates.

Reduced tillage practice: How it has grown

American farmers were expected to use reduced tillage farming practices—no-till and minimum tillage combined—on 31.9 per cent of the nation's cropland in 1981.

This figure reported in *No-Till Farmer* magazine, is based on data gathered last January from state agronomists of the Soil Conservation Service in all 50 states and Puerto Rico.

No-till—3.3 million acres in 1972—was expected to total more than 8 million acres in 1981, eclipsing the previous high of 7.5 million acres in 1976.

Minimum tillage acreage the past ten years increased even more rapidly and represents the real growth area in the reduced tillage area, according to *No-Till* editor Frank Lessiter. In 1972, 26.3 million acres were minimum tilled, compared with an anticipated 88.1 million acres in 1981.

Adding both the no-till and minimum tillage land, the U.S. has gone from a total of 26.7 million acres of reduced tillage in 1972 (17 per cent of total U.S. cropland) to an estimated 96.8 million acres in 1981.

On a national basis, farmers were expected to no-till more corn, soybeans, grain sorghum, cotton and small grains in 1981. The only anticipated decreases in no-till acreages were for pasture renovation and vegetable crops.

Table 1 compares three types of tillage practices state-by-state for 1980 and 1981.

A big growth area for no-tillage expected in 1981 was for small grains. Farmers no-tilled 676,000 acres of grains in 1980 and were expected to increase the acreage to 1.6 million acres during 1981.

Pennsylvania was expected to

(More...)

Table 2 **A ten-year tillage comparison**

Crop Category	1981 (Estimated)	1980 (Actual)	1979 (Actual)	1978 (Actual)	1977 (Actual)	1976 (Actual)	1975 (Actual)	1974 (Actual)	1973 (Actual)	1972 (Actual)
Total no-till acres	9,958,000	7,137,681	6,888,127	5,148,144	7,271,601	7,009,968	6,945,229	5,442,507	4,975,799	3,956,487
Total minimum-till acres	38,142,395	31,333,872	76,456,453	67,587,950	62,732,242	62,137,280	49,889,562	11,294,505	39,082,755	26,355,613
No-till corn acres	3,128,252	2,943,501	3,822,527	3,651,703	3,602,732	4,615,765	4,105,843	3,303,197	3,043,157	2,069,340
No-till soybean acres	2,879,284	2,613,162	2,202,173	1,929,984	2,380,284	1,724,117	1,632,611	1,523,889	1,168,732	867,481
No-till grain sorghum acres	404,510	346,635	277,194	260,813	379,292	282,854	397,442	226,320	165,073	141,545
No-till cotton acres	2,600	1,150	3,500	3,500	[illegible]	[illegible]	6,627	6,150	3,200	1,710
No-till vegetable acres	8,100	3,185	9,260	7,982	3,705	825	12,345	10,595	7,683	6,370
No-till small grain acres	1,536,415	676,363	763,171	709,611	569,809	584,821	288,472	222,316	222,633	–
No-till pasture renovation acres	773,895	399,783	277,562	290,866	228,987	246,487	128,000	140,380	204,830	–
No-till of other crops	155,137	148,902	250,970	348,885	79,369	57,835	–	–	–	–

Source: No-Till Farmer magazine

Reduced Tillage *(continued)*

no-till 1.2 million acres and Kentucky, 1.0 million acres. Other states with more than one-half million acres of no-tilled crops expected were Illinois, Georgia and Nebraska. Twenty states were expected to no-till more than 100,000 acres each in 1981.

Table 2 shows the growth of no-till and minimum-till acreage during the past 10 years.

Actual figures for 1981 are being gathered this month and will be reported about March 1, said Lessiter, along with estimates of no-tilled, minimum-tilled and conventionally-tilled acreage, state-by-state and crop-by-crop.

Copies of the 1981-1982 survey cost $100 and may be ordered from No-Till Farmer, Inc., P.O. Box 643, Milwaukee, Wis. 53201.

Switch To Less Tillage *(Continued from page 24)*

ward in North Dakota, ag engineers there reported they are seeing a gradual increase in no-till acreage, especially when growing fall-seeded crops such as rye and winter wheat.

"Some farmers are turning to no-till to save soil and some are changing to reduce fuel use. We have found that costs are almost equal for each method if farmers place a cost on machinery depreciation, as they should," the engineers responded.

Nebraska's Dickey felt reasons for the move away from the moldboard plow include a variety of items including soil loss, fuel saving and labor requirements.

"Even though soil conservation is the most critical reason, realistically I feel the continued reduction of the farm labor supply as well as adding additional acreage have literally forced some producers to eliminate unnecessary tillage operations and to combine other operations simply to get their crop planted on a timely basis," Dickey said.

In a 1975 Illinois survey, farmers gave the following reasons for changing from conventional to conservation tillage: Save time was listed by 69 per cent; save fuel and reduce costs by 62 per cent; reduce erosion, 52 per cent; changed practices have no effect on yield, 23 per cent; because herbicides have become available, 57 per cent.

"I am sure improved planting equipment has had a significant effect in recent years in the increased adoption of conservation tillage in Illinois," Siemens wrote.

Conservation of soil and moisture is a major factor in the western and central sections of Oklahoma. However, most of the interest in minimum tillage methods comes from the desire to reduce production costs or increase farm revenue by the use of second cropping, Downs, Bloome and Stiegler reported.

Changes in tillage practices in Montana have been partially associated with soil conservation and energy savings, but the primary reason farmers are interested in no-till on dryland small grains is to trap snow and use the available moisture on an annual basis. Alternate year cropping permits soil moisture to penetrate below the crop root zone and the accumulation of moisture follows clay or shale layers until it emerges along a hillside as a saline seep, Larsen explained. This has caused a considerable amount of production loss, he said. □

AUCTION PRICES OF USED EQUIPMENT

An exclusive I&T monthly report of actual prices paid recently at these leading national wholesale auctions.

Asterisk beside tractor price indicates highest bid offered on tractors which were not sold.

JONES FARM EQUIPMENT CO. Dothan, Alabama (November 10, 1981)

ALLIS-CHALMERS TRACTORS
7040 diesel, 1977 (Good) 10,250
5040 diesel, 1978 (Excellent) 3675
200 diesel, 1972 (Excellent) 6500*
D17 diesel, 1960 (Rough) 475
D14, corn picker, 1958 (Rough) 525

CASE TRACTORS
1070 diesel, 1978 (Excellent) 10,000
970 diesel, 1975 (Excellent) 6900
750 diesel, ldr., 1971 (Fair) 1800

DAVID BROWN TRACTORS
1210 diesel, 1974 (Excellent) 4800
880 diesel, 1967 (Good) 2300*
770 diesel, 1969 (Good) 1700

MASSEY-FERGUSON TRACTORS
1155 diesel, 1973 (Fair) 6650
1135 diesel, 1979 (Excellent) 8500
1085 diesel, 1978 (Excellent) 8000*
1085 diesel, 1977 (Excellent) 9000
1085 diesel, 1976 (Fair) 5150
1080 diesel, 1972 (Good) 4400
285 diesel, 1977 (Excellent) 7100*
275 diesel, 1977 (Good) 6600
265 diesel, 1980 (Excellent) 11,000
255 diesel, 1975 (Good) 5800
255 diesel, 1975 (Good) 5200*
245 diesel, 1979 (Excellent) 6100
245 diesel, 1979 (Excellent) 8500*
245 diesel, ldr., bld., 1977 (Good) 7200
235 diesel, 1975 (Excellent) 5200
230 diesel, 1978 (Good) 4700
230 diesel, 1977 (Excellent) 7100*
230 diesel, 1977 (Excellent) 7400
230 diesel, 1976 (Good) 4850
180 diesel, 1967 (Good) 3700
175 diesel, 1973 (Good) 3500
175 diesel, 1969 (Excellent) 4300
175 diesel, 1969 (Good) 3500
165 diesel, 1970 (Good) 3450
165 diesel, 1969 (Fair) 2400
165, 1967 (Good) 3700*
165, 1967 (Fair) 3000*
165 diesel, 1966 (Good) 3600
165 diesel, 1966 (Good) 3550
165 diesel, 1966 (Fair) 3000
135 diesel, 1973 (Excellent) 3700*
135 diesel, 1973 (Excellent) 3900
175 diesel, 1973 (Excellent) 3500*
135 diesel, 1973 (Excellent) 4000
135 diesel, 1970 (Excellent) 3400
135, 1966 (Fair) 2500*
135 diesel, 1966 (Good) 3150
135 diesel, 1966 (Good) 2900*
135 diesel, 1966 (Good) 3100
130 diesel, 1970 Fair) 2100*
65 diesel, 1964 (Good) 1900
50, 1962 (Rough) 1250
50, 1961 (Good) 1750
35 diesel, 1963 (Good) 1925
35, 1960 (Excellent) 2500
35, 1956 (Good) 1650
T030, 1953 (Fair) 800
T030, 1953 (Fair) 725
25 diesel, 1964 (Good) 1950
20, 1949 (Fair) 750*
20, 1949 (Good) 950

FORD-FERGUSON TRACTORS
9N, 1948 (Good) 1050
9N, 1944 (Good) 900

FORD TRACTORS
9000 diesel, 1971 (Fair) 4300
8700 diesel, 1977 (Excellent) 10,000*
8000 diesel, 1972 (Fair) 4100
7700 diesel, 1979 (Excellent) 9800*
6600 diesel, 1980 (Excellent) 8300
5000 diesel, 1971 (Good) 4300
5000 diesel, 1971 (Good) 4800
5000 diesel, 1970 (Excellent) 5500*
5000 diesel, 1968 (Fair) 3600
4600 diesel, 1980 (Excellent) 9500
4400 diesel, ldr., backhoe, 1966 (Good) 3800*
4000 diesel, 1968 (Good) 3400
4000, 1968 (Fair) 2825
4000 diesel, 1968 (Excellent) 4000*
4000 diesel, 1968 (Good) 3300*
4000, 1966 (Fair) 2400*
4000 diesel, 1966 (Good) 3100
4000 diesel, 1965 (Fair) 2450*
3600 diesel, 1976 (Good) 5500
3600 diesel, 1981 (Excellent) 7600
3400 diesel, ldr., backhoe, 1966 (Fair) 3300
3000 diesel, 1968 (Excellent) 3700*
3000 diesel, 1968 (Excellent) 3700*
3000 diesel, 1968 (Excellent) 3700
3000 diesel, 1968 (Good) 3300*
3000 diesel, 1966 (Good) 3500*
2600 diesel, 1979 (Excellent) 5600*
2000 diesel, 1968 (Good) 3300
2000 diesel, 1965 (Fair) 2150*
2000 diesel, 1963 (Rough) 1075
2000, 1963 (Good) 1550
1600 diesel, 1977 (Good) 2700
Major diesel, 1953 (Fair) 550
Sup. Dexta, 1963 (Good) 1525*
Sup. Dexta, 1963 (Excellent) 1800*
861, 1958 (Excellent) 2700
841, 1958 (Excellent) 2400*
641, 1959 (Good) 1950
641, 1959 (Good) 2000
640, 1956 (Rough) 1100*
NAA, 1954 (Good) 1500
Jub., 1953 (Good) 1700*
Jub., 1953 (Excellent) 1900
8N, 1952 (Excellent) 1500
8N, 1951 (Good) 1050
8N, 1950 (Good) 1050*
8N, 1948 (Rough) 550
8N, 1948 (Fair) 800

INTERNATIONAL HARVESTER TRACTORS
1586 diesel, 1975 (Good) 7500
1066 diesel, cab, 1972 (Good) 8500
806 diesel, 1966 (Good) 3750
806, 1966 (Fair) 3200*
766 diesel, 1974 (Good) 7150
656 diesel, 1966 (Good) 3500
574 diesel, 1972 (Fair) 2950*
544 diesel, 1968 (Good) 2900
504 diesel, 1964 (Fair) 1250
504 diesel, 1963 (Rough) 800
424 diesel, 1966 (Good) 2100
M, 1948 (Good) 450
Cub, plow, mo., 1948 (Rough) 675
Cub, mo., 1948 (Good) 1150*

JOHN DEERE TRACTORS
4320 diesel, 1971 (Good) 9000*
3020 diesel, 1970 (Excellent) 5800
3020 diesel, 1965 (Good) 4400
3020 diesel, 1965 (Good) 4100
3020 diesel, 1965 (Good) 4750*
3020 diesel, 1965 (Good) 4250
2630 diesel, 1975 (Excellent) 6900
2520 diesel, 1970 (Excellent) 6200
2030 diesel, 1974 (Good) 4900
2010, 1961 (Good) 1500
1020 diesel, 1968 (Good) 3250
1020 diesel, 1967 (Good) 2750
1020 diesel, 1967 (Fair) 2050*
820 diesel, 1969 (Excellent) 3700
720 diesel, 1957 (Good) 950
430, 1959 (Good) 1400*
430, 1959 (Rough) 750*
400, 1970 (Rough) 1350
301A, 1975 (Fair) 2275

LONG TRACTORS
560 diesel, (Good) 2700*
560 diesel, (Good) 3250
445 diesel, (Fair) 1625
384 diesel, (Fair) 2200
350 diesel, (Good) 3000

OLIVER TRACTORS
1955 diesel, 1973 (Good) 8000
1850 diesel, 1968 (Good) 2700
770 diesel, 1962 (Rough) 575
600 diesel, 1964 (Fair) 675

SATOH TRACTOR
S650 diesel, (Good) 2200

NOTES
Prices reported are for individual sales at wholesale on "as is," "car's and carry" basis.
Prices reported are NOT averages.

Condition classifications: EXCELLENT means—Engine: in perfect condition, 400 to 600 hours of use; Rubber: 80% tread remaining, no breaks or cracks; Paint: original and bright; General Appearance: excellent.

GOOD means—Engine: good running condition; Rubber: 70% tread remaining, no breaks or cracks; Paint: original paint or a good repaint job; General Appearance: good over-all.

FAIR means—Engine: possibly in need of a minor overhaul to restore; Rubber: 60% tread remaining, some cracking evident in side walls; Paint: only fair, weathered and some rust apparent; General Appearance: worn, some dents, minor parts such as gage covers missing or broken.

ROUGH means—Engine: obviously in need of a major overhaul; Rubber: smooth; Paint: scarred, weathered, rusty, needs painting urgently; General Appearance: dents, ruptures, broken parts, loose wires, some components such as lights broken, missing or inoperative.

DEMONSTRATOR means—used for demonstrating only and in practically new condition.

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